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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,779	12/27/2001	Hyoungh taek Kim	SI-0015	9759
34610	7590	04/05/2006	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			HALIYUR, VENKATESH N	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/026,779

Applicant(s)

KIM, HYOUNG TAEK

Examiner

Venkatesh Haliyur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-14 and 19 is/are rejected.
- 7) ☒ Claim(s) 5-8, 15-18 and 20-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's amendment filed on 01/12/2006, with respect to the rejection(s) of claim(s) 1-22 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Willars et al. and Curry et al.
2. Claims 1 – 22 are pending in the application.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3,9-11,19 are rejected under 35 U.S.C. 102(e) as being anticipated by Curry et al [US Pat: 6,359,880].

Regarding claims 1,19, Curry et al. disclosed in their invention of "Public Wireless/Cordless Internet Gateway" system to provide access to packet data network

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and to core network (**internet, PSTN items 31 & 45 of Fig 1 respectively**) for wireless subscribers through radio access network (**wireless gateway system, item 5 of Fig 2**) by establishing a traffic connection between a first mobile station (**handset, item 1 of Fig 1**) and a first base station subsystem for IP (**base station, item 61 of Fig 2, packet service gateway, item 69 of Fig 2**) using a prescribed protocol upon receiving a call connection request message from the first MS, interpreting a directory number (DN) of a second MS (**handset 1**) as requested by the first MS and establishing a traffic connection between the second MS and a second BSS-IP (**base station, RPCU, wireless gateway system, items 61,63,5 respectively of Fig 2, col 17, lines 37-67, col 18, lines 1-16**) using a prescribed protocol, generating a ring-back tone using a prescribed protocol so that the first MS receives the ring-back tone, and stopping the generation of the ring-back tone using a prescribed protocol if the second MS responds, and establishing a call connection between the first MS and the second MS (**establishing communication between two or more wireless handsets, item 1 of Fig 1, col 5, lines 10-29, cols 18-19, col 20, lines 1-42**) [Figs 1-2, col 4, lines 2-57, col 5, lines 11-67, cols 6-12, col 13, lines 1-31, cols 16-20, col 21, lines 1-27].

Regarding claim 2, Curry et al. disclosed that the first MS is a call originating MS, the second MS is a call receiving MS, the first BSS-IP is associated with the first and the second BSS-IP is associated with the second MS (**wireless handsets, item 1 of Fig 2, associated with base stations, item 61 of Fig 2, to access packet service gateway, 69 of Fig 2, in wireless gateway system item 5 of Fig 2**) [Fig 1-2, col 4, lines 3-55, col 5, lines 11-65, col 12, lines 1-21].

Regarding claim 3, Curry et al. disclosed that the prescribed protocols comprise matching signal protocols for the signal connection transfer and the traffic connection control protocols **[Fig 2, col 5, lines 1-65, col 6, lines 1-33, col 11, lines 28-67]**.

Regarding claim 9, Willars et al disclosed system for inter-working a Radio Access Network (**wireless gateway system, item 5 of Fig 2**) in an IP based Core Network comprising (**internet, item 31 of Fig 1**), a Wireless Call Agent (**radio port control unit, item 63 of Fig 2**) to conduct call connections and routing functions by controlling all gateways accommodated in the IP based CN, a Base Station Subsystem for Internet Protocol (**base station in wireless gateway system, items 61 & 5 of Fig 2, col 17, lines 37-67, col 18, lines 1-16**) configured to conduct gateway functions by controlling the radio access network and communicating with the WCA, a Trunk Gateway (**PBX, item 65 of Fig 2**) configured to conduct voice traffic matching functions between the IP based CN (**item 31 of Fig 1**) and a wire-based network (**central office, item 47 of Fig 1**), and to provide service functions unique to voice communication, a Signaling Gateway (**PSTN signaling, item 45 of Fig 1, col 7, lines 49-67**) configured to provide No. 7 signal connection matching functions between the IP based CN and the wire-based network, a Home Location Register (HLR) configured to manage mobile communication subscribers' locations within a mobile communication network (**col 10, lines 1-67, col 11, lines 1-28**) and to perform mobility control, and a Packet Data Serving Node (**item 69 of Fig 2**) configured to conduct inter-working of the IP network and the mobile communication CN so as to provide packet data services for the mobile

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communication subscribers (**handsets 1**) [Figs 1-4, col 4, lines 2-57, col 5, lines 11-67, cols 6-12, col 13, lines 1-31, cols 16-20, col 21, lines 1-27].

Regarding claim 10, Curry et al. disclosed that IP based CN may be routed by IP, based upon high-speed packet network [col 6, lines 34-45].

Regarding claim 11, Curry et al. disclosed that the matching signal protocol stacks are provided between the BSS-IP (**base station, item 61 of Fig 2, packet service gateway, item 69 of Fig 2**) and the WCA (**radio port control unit, item 63 of Fig 2**) for the signal connection transfer, and traffic connection control protocol stacks are provided between the BSS-IP and the TG (**PBX, item 65 of Fig 2 connected to packet service gateway**) [Fig 2, col 11, lines 29-67].

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4,12,13, are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry et al [US Pat: 6,359,880].

Regarding claim 4,12,13, Curry et al. disclosed that the matching signaling and traffic connection protocols for IP, but fails to disclose signal protocols comprising M3UA

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(MTP3 User Adaptation), SCTP (Stream Control Transmission Protocol), IP, MGCP (Media Gateway Control Protocol), IOS Application, SCCP (Signaling Connection Control Protocol), UDP (User Datagram Protocol), LLC (Logical Link Control), and Physical, and wherein the traffic connection control protocols include RTP (Real Time Protocol)/RTCP (Real Time Control Protocol), UDP, IP, Voice Encoded Data, LLC, MAC, and Physical, However it is obvious that these protocols are standard protocols defined for wireless access to IP based packet data networks and to PSTN networks the matching.

7. Claims 14 is rejected under 35 U.S.C. 102(e) 103(a) as being unpatentable over **Willars et al [US Pub: 2001/0053145]** in view of **Barany et al [US Pat: 6,839,356]**.

Regarding claim 14, Willars et al. disclosed in their invention of "Combining Differing Transport Technologies in a Telecommunications System", a system and method for inter-working a Radio Access Network (**item 24 of Fig 2B**) in the IP based Core Network (**item 16 of Fig 2B**), comprising protocols for establishing a unified IP based communication network by matching the RAN and the CN, and for signal connection and traffic transmission connection required for the matching of the two networks, wherein the protocols comprise, an MTP-3 User Adaptation layer (M3UA) to match an MT3 protocol, which transfers messages on a wire-based No. 7 signal network, and the IP network, a Stream Control Transmission Protocol (SCTP) to reliably transfer signal messages on the IP based network (**Figs 2A,2B,2C,6B, Para 0025-**

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**0031, Para 0047-0070,0102-0103**), but fails to disclose a Logical Link Control (LLC) to control a link level on the Internet, a Media Gateway Control Protocol (MGCP) to provide a gateway control function required for physical matching of a PSTN and the IP network, a User Datagram Protocol (UDP) for transferring non-connection type higher level application messages on the IP network, the Internet Protocol (IP) used as a message routing basis on the Internet; and a Media Access Control (MAC) to control the physical link level on the Internet.

However, Barany et al disclosed the matching signaling protocols comprising MGCP, SCCP, UDP, L2 and Physical and matching traffic connection control protocols as RTP (Real Time Protocol/RTCP (Real Time Control Protocol), UDP, IP, Voice Encoded Data (Codec), interoperability, LLC, MAC and Physical (**Figs 3-5,6A,6B,7,10 columns 9 -12, column 13, lines 10-31**). Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use matching protocols for signaling and traffic connections as taught by Barany et al in the system of Willars et al for RAN inter-working with an IP based packet data networks and PSTN network to provide packet data access to mobile stations. One is motivated as such in order to use signaling MGCP, SCCP, UDP, L2 and Physical and matching traffic connection control protocols as RTP/RTCP, Codec, LLC, MAC and Physical for providing a reliable signaling data and traffic transfer based upon UDP and IP for wireless access to IP/UDP based data networks and PSTN.



***Response to Arguments***

8. Applicant's arguments filed on 01/12/2006 with respect to claims 1-22 have been fully considered but are moot in view of the new ground(s) of rejection.

***Allowable Subject Matter***

9. Claims 5-8,15-18,20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached @ (571)-272-3139. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.
11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

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03/31/06

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SUPERVISORY PATENT EXAMINER